37

# PATENTS

*FOR*

# INVENTIONS

A POPULAR INTRODUCTION

*By*

R. B. PAI

*Patents Officer :*

COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH

*A CSIR Publication on the occasion*

*of*

THE INDIAN PATENT CENTENARY

28th February 1956

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*Price Rs. 5/-*

*" A country without a patent office and good patent laws is just a crab and can't travel any way but sideways and backways ".*

— MARK TWAIN.

# FOREWORD

The question whether it is worth while for us to have a Patent System has been raised frequently. Notwithstanding certain imperfections of the System as it has operated so far, the answer has been that a suitable Patent System will be conducive to the industrial progress of the country. Very little is known as to what a Patent is, and the Indian Inventor and the Indian Manufacturer, for whom the Patent System is primarily intended, have not evinced much interest in it. So far there has not been any publication which gives the Inventor and the Manufacturer some idea of the Indian Patent System. The present publication, being the first of its kind, will, I hope, cater to this want and be of help to Indian Inventors and Manufacturers.

M. S. THACKER,
*Director*,
Scientific and Industrial Research.

NEW DELHI,
9th February, 1956.

# PREFACE

The publication of this book coincides with the Centenary of the Patent System in India. The aim of the book is to explain in simple language what the Patent system means, why it is important, and how best it can be utilised by inventors, manufacturers, scientists and others.

This book has been divided into three parts. The first part is of an introductory nature the second part gives a brief outline of the scheme underlying the Indian Patents & Designs Act, 1911; and the third part gives practical hints on matters which frequently confront inventors and patentees and for which the usual text books provide no guidance.

For the benefit of those who might be interested in further study of Patents, appendices I to III have been added.

It is hoped that the publication of this book on the occasion of the Centenary of the Patent System in India will stimulate the interest of inventors and manufacturers in the country's Patent System.

The author expresses his sincere gratitude to all those who have given him so much help and encouragement in writing this book.

*AUTHOR.*

# CONTENTS


| | Pages |
|---|---|
| Foreword | (v) |
| Preface | (vii) |
| Part I—Introductory | 1 |
| Patents, Designs, Trade Marks & Copyright Illustrated | 9 |
| Part II—The Indian Patent System | |
| Legislation | 12 |
| Patentable Inventions | 12 |
| (*i*) must be manufactures | 12 |
| (*ii*) must have novelty | 14 |
| (*iii*) must have inventive ingenuity | 14 |
| (*iv*) must have utility | 17 |
| (*v*) must not be contrary to law and morality | 17 |
| Who is the Inventor? | 17 |
| Employer and employee | 17 |
| Fraud | 19 |
| Who can apply for a Patent? | 19 |
| Government servants | 19 |
| The Specification | 20 |
| Fees | 20 |
| Procedure for obtaining a Patent: | 21 |
| (*i*) Filing | 21 |
| (*ii*) Examination | 22 |
| (*iii*) Acceptance | 22 |
| (*iv*) Opposition | 23 |
| Sealing | 23 |
| Time limits | 24 |
| Rights of the Applicant for Patent | 24 |
| Date of Patent | 25 |
| Term of Patent | 26 |
| Rights of the Patentee | 26 |
| Restrictions on Patent Rights | 27 |
| Infringement of Patents | 28 |
| Register of Patents | 29 |
| Supplementary proceedings: | 29 |
| (*i*) Renewal | 29 |
| (*ii*) Restoration | 30 |

(*iii*) Extension of Term .. .. .. 30
(*iv*) Amendment .. .. .. .. 30
(*v*) Appeals .. .. .. .. 31
Special Patents .. .. .. .. 31
The Patent Office .. .. .. .. 32
Publications of the Patent Office .. .. .. 33
Inspection Centres .. .. .. .. 33
The Central Government .. .. .. 33
Facsimile of a Patent Specification .. .. 34
Facsimile of the Drawings .. .. .. 37
PART III—PRACTICAL HINTS
1. Make a patent search before starting to invent .. 38
2. Have clear understandings with employers and employees .. .. .. .. 38
3. Keep records .. .. .. .. 39
4. What are the practical steps to be taken as soon as an invention has been made? .. .. .. 39
5. To what extent should secrecy be observed? .. 39
6. Can the Invention be published or exhibited before an application for a patent has been filed? .. .. 40
7. Should the application for patent be made on the basis of a provisional or a complete specification? .. 41
8. How much does it cost to take out a Patent? .. 41
9. Is it wise for an inventor to be his own Patent Agent? 42
10. How much of the invention should be disclosed in the Patent specification? .. .. .. 43
11. Should the application be made in the name of the employer or the employee? .. .. .. 43
12. How to deal with Official Objections .. .. 44
13. Commercial exploitation of Patents: 45
(*i*) Leave commercial exploitation to the businessman 45
(*ii*) Do not venture to exploit until a saleable product could be produced .. .. .. 45
(*iii*) Do not approach businessmen until the financial aspect of the patented invention has been investigated .. .. .. .. 45
14. Methods of exploitation .. .. .. 46
APPENDICES: I—HISTORICAL AND COMPARATIVE .. .. 48
II—REFORM OF THE PATENT SYSTEM .. .. 52
III—FURTHER STUDY .. .. .. 54

PART I

# Introductory

Every country which aspires to industrial greatness has provided for a system of granting patents for inventions. The total number of patents hitherto granted all the world over would number several millions. In this enormously long list of patents appear some of the most monumental and important inventions of modern times. For instance, patents granted in the U.S.A. include the telegraph, the telephone, the electric light, the aeroplane, the phonograph, the cinema projector, the sewing machine, the typewriter, the radio valve and a host of others. Great names headed by Alexander Graham Bell (the telephone), Thomas A. Edison (the electric light), Samuel F. B. Morse (the telegraph), Wrights Brothers (aeroplane), Charles Goodyear (vulcanising process) appear in the list of inventors responsible for the patents. Turning to Great Britain, over a million patents granted in that country during the last 150 years include the great patents of Watt and Arkwright, " and from among the vast throng of patentees the names of Bessemer, Siemens, Perkins, Swan, Parsons, Marconi, Baird, Watson-Watt, Whittle and hundreds of others stand out as part creators of our modern civilization ".

Although mention has been made of a few pioneer inventors who have taken out patents for their inventions, it is important to note that it is not merely the great inventions which are patented; nor is it that only great inventors resort to patenting. A million patents are needed to yield the one-in-a-million. The patent system is meant for inventors and inventions great and small. In fact, it may be said without exaggeration that more than ninety-nine per cent of patents are granted for " improvement " inventions, some of the improvements aimed at being of comparatively minor importance. In this respect, the patent system can be compared to a nurse who looks after babies, strong or weak. In fact, the nurse has to handle weaklings with parti-

cular care to give them a chance to grow into healthy beings. It is for this reason that the Patent Office is at all times flooded with every type of invention seeking patent protection.

The enthusiasm shown by inventors great and small for taking out patents amply proves that patents encourage inventive activity. In India too in recent years patenting has become increasingly popular with inventors, as shown by Patent Office figures concerning inventions of Indian origin. It can be hoped that in spite of a late start, the protection and incentive provided by the Indian Patent System would encourage Indian inventors to put forth unprecedented efforts to create and develop new inventions and make substantial contributions in this field.

*The field for Patents :*

Whoever makes a new and useful invention can obtain a PATENT for it. In the present context an " invention " refers to something which concerns "manufacture", for instance a new paper clip, a new nail cutter, a new way of making soap or a tamper-proof packing for safety razor blades or cosmetics. New ideas which do not relate to manufacture are not regarded as inventions as applied to patents. The invention of a new formula to solve a mathematical problem, or a plot for a crime story or a detective novel, however ingenious it may be, cannot be patented.

*The patent :*

A patent is a grant made by the government conferring on the grantee for a limited period which is usually sixteen years, the right to exclude others from making using or selling the invention without his consent. A condition precedent to the grant of a patent is that the applicant for a patent should, by filing a complete specification of his patent, disclose a new invention and the best method known to him for carrying that invention into practice.

*Is a patent in the nature of a "monopoly"?*

The Patent System had its origin in the system of granting

monopolies in the middle ages under the royal prerogative claimed for the Crown. Due to this fact, as well as the fact that a patent confers an "exclusive right" on the patentee, many look upon the Patent System as a system of granting "monopolies". But under the modern Patent Systems, a patent is granted in accordance with the law of the country, and not as an arbitrary grant made by Government; and every "exclusive right" need not necessarily be the criterion of a "monopoly", *e.g.*, a proprietary right of any individual over the property owned by him, is an "exclusive right" of his, but it is not looked upon as a "monopoly". Having regard to these considerations, a patent may be said to be essentially in the nature of a recognition of a proprietary right of an inventor over his invention, rather than a "monopoly" as ordinarily understood.

The essential distinction between a patent and a monopoly is that while the former does not take away any subsisting rights from the public, an ordinary monopoly restrains the public from doing something which they had a right to do at the time when the monopoly came into existence. Further, a patent is granted subject to the condition that it shall be accounted null and void if it should afterwards appear to have been in any way wrongly or illegally obtained or to be operating to the prejudice of the public interest. Hence a patent is only a contingent privilege which becomes non-effective if found contrary to law.

*How does a patent help*?

(i) Patents are of value to the Inventor, the Manufacturer and the general Public.

(a) *Value of a patent to the Inventor :*

A patent puts the *inventor* in a better position to work his invention for profit. The inventor can work the patent himself or if he is not in a position to work it himself, he can sell or license it to others. In either case he has the confidence that the patent would protect his proprietary rights in the invention and help him to get the proper recompense which is his due as the originator of the invention.

(b) *Value of a patent to the Manufacturer :*

The value of the patent to the *manufacturer* is no less. Even if he is himself not the inventor, he can buy the patent from the inventor or work it under a licence and thus benefit himself from the rights conferred by the patent. Under the protection given by a patent the manufacturer can work a new invention on a commercial scale without fear of competitive use of the invention. Freedom from competition during the early formative years is of vital importance for the establishment of industries based on new inventions which have as yet not been tried out on a commercial scale. Investment in such industries is a highly risky and speculative venture. It is common experience that in the absence of patent protection, business men and manufacturers decline to invest money and capital in risky ventures connected with the development of commercially untried new inventions.

(c) *Value of a patent to the general Public.*

The value of patents from the point of view of the *general public* is also great. The public as a whole benefits from the flow of new inventions stimulated by the patent system. There are many other public benefits:

(i) As a condition to the grant of a patent, the patentee has to file a full written description of the nature of the patented invention and the best way known to him of carrying it out in practice. This is known as the "specification" of the invention. The specification is printed by the Government and made available to the general public. Every patent thus provides a permanent record of the inventor's contribution to the stock of public knowledge.

(ii) Upon the expiry of a patent, the invention becomes public property. Anyone can then work it without paying any tribute to the former patentee. The patent system thus results in the compulsory dedication to the public of thousands of inventions consisting of expired patents.

(iii) All printed specifications are housed in public inspection centres for patent literature. Suitable abstracts and indexes are

also prepared. The vast and well ordered mass of patent literature forms an important source of technical information and a treasure-house of ideas for inventors and manufacturers.

*Examples :*

A few recent instances where patenting has helped :

(i) Patents taken out in India and Europe for an invention made at the Fuel Research Institute, Dhanbad, have recently been licensed for commercial development for a lump sum payment of Rs. 75,000/-, to be followed by recurring payments depending on the extent of manufacture and sale.

(ii) A patent on the making of insulating bricks from waste mica has recently been licensed to an Indian firm for Rs. 25,000/- initial payment, plus recurring royalties. This patent was taken on an invention made at the Central Glass and Ceramic Research Institute, Calcutta.

(iii) Two patents taken out by the Council of Scientific and Industrial Research on ether manufacture and manufacture of ethylene dichloride respectively have been recently licensed to a big manufacturing concern on lucrative terms. The inventions were made at the Shri Ram Institute for Industrial Research, Delhi, in connection with a research scheme financed by the Council.

(iv) According to the Patent Office Society, " In India, there are several instances of patents for common articles such as tiles, husking machines, rice bowls and safes, which have fetched amounts varying from Rs. 10,000 to Rs. 20,000 to patentees. In some cases inventors have made profits to the tune of Rs. 3,00,000 in respect of a single Indian patent."

(v) Milton Wright in his book " Inventions and Patents " writes, " In the United States, to-day, there are said to be at least 50 patents which yield more than $1,000,000 a year and 15,000 to 20,000 patents which yield more than $100,000 a year."

In these and numerous other cases patenting has been of considerable practical use for earning handsome profits on new and useful inventions.

But even apart from the profit earning standpoint, the patent system has helped industrial progress in various ways. For example,

Firstly, the prospect of commercial exploitation through patents has stimulated inventors to put forth greater creative effort leading to new inventions.

Secondly, the research organizations which have financed the research schemes have been enabled to retain their control over the inventions evolved, through proper agreements concerning the patent rights.

Thirdly, patents have provided a convenient basis for negotiating with parties interested in the commercial development of new inventions.

Fourthly, commercial interests have been encouraged to risk money and capital in developing new inventions in view of the protection from uneconomic competition afforded by the patents.

Fifthly, the general public has benefited by the addition to the vast stock of technical knowledge and by the preservation of the records of valuable inventions, some of which might have been lost to posterity in the absence of such a record. The full disclosure of the inventions in patent specifications can be consulted by anybody without difficulty.

Finally, when the patents have expired, the patented inventions have become available to the public for exploitation freely.

*World Patents :*

As a rule, every country grants its own patents and does not enforce within its territories patents granted in other countries. There can therefore be no such thing as a World Patent and anyone who desires to enjoy patent rights all over the world should take out a separate patent in each country.

One of the exceptions to this general rule is that, as a temporary measure, Burma is giving recognition to Indian patents, so that an Indian patent could be enforced in Burma as if it were a patent granted by the Government of Burma.

*Patents, Designs, Trade Marks and Copyright :*

" Patents ", " Designs ", " Trade Marks " and " Copyright " are expressions which occur frequently in common parlance. But it is very rarely that distinctions between them are duly appreciated. Thus it is usual for a manufacturer to say that he wants to " patent " his " design " when all that he wants is to register his " trade mark ". Again, the so-called " patent medicines " or pharmaceutical preparations based on secret or published formulae are frequently confused with the " patents " for inventions.

In order to appreciate the exact significance of these expressions, take the example of a manufactured product, say, a fountain pen. A person who desires to buy a fountain pen would like (*a*) that it writes smoothly, (*b*) that it can be manipulated conveniently for feeding it with ink, (*c*) that it is not too costly, (*d*) that it is attractive in appearance, (*e*) that it is the product of a reputed firm of manufacturers. He might also be influenced by (*f*) the mode of advertising the pen such as by a slogan or a Limerick stressing upon the merits of the pen.

*Patents :*

Factors (*a*), (*b*) & (*c*) depend largely on the mechanical construction of the pen, the materials used for the manufacture of the component parts and the methods of manufacturing and assembling the various parts. All these, in their turn, depend upon the " invention " or " inventions " underlying its manufacture. If a manufacturer has invented improvements whereby a better pen or a cheaper pen could be manufactured, he would like to see that he is not robbed of his invention by his rival manufacturers and the legal provision which protects the " inventions " underlying a product of manufacture is termed a " Patent ".

*Designs :*

To continue with our hypothetical pen manufacturer: a patent will not prevent his rival manufacturers from copying the shape or other attractive features of the external appearance of

his pen, or from selling *their* pens under a name which will deceive the public into believing that they are of *his* manufacture.

As, however, the attractive features of the external appearance of the pen are also valuable to him, the law provides that such external features of shape, configuration or ornamentation could be protected by the registration of a " Design ". Thus a " Design " is concerned with the external features of an article as they appeal to the eye in the finished article, and has nothing to do either with the " Invention " underlying the manufacture of that article or with the name or other indication showing the connection in the course of trade between the article and the manufacturer or trader who places the article in the market.

*Trade Marks :*

Pens marketed by well known firms are marked by well known names such as " Parker ", " Swan ", " Waterman's ", " Pilot ", " Sheaffer's ", etc. Apart from the mechanical features and the attractive external features of the pen, the purchaser will have a fancy for pens originating from well known makers. Law therefore safeguards the interests of the various manufacturers and also protects the public from deception and confusion. It gives a manufacturer or trader who adopts a suitable " Name ", " Mark ", or other visible indication used upon goods to identify his goods or to distinguish his goods from those of others, an exclusive right for the use of that word or mark or other visible indication. This exclusive right is enjoyed under the law of Trade Marks.

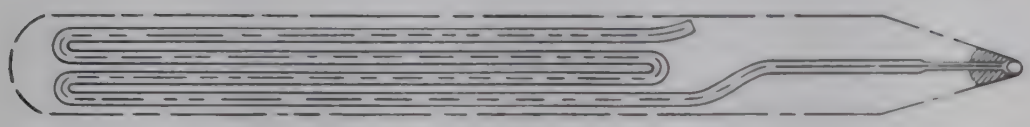
Thus, if the manufacturer of the pen uses the name " Bijli " for identifying his pen, " Bijli " will be the Trade Mark of his pen and his rival manufacturers will be precluded from using " Bijli " as the name of their pens by the law of Trade Marks. Examples of well known Trade Marks are: " Sunlight " for soaps & " 7 O'Clock " for safety razor blades.

*Copyright :*

If the manufacturer popularises his " Bijli " pen by a Limerick as in the illustration, he would not like that his rivals should

# PATENT, DESIGN, TRADE MARK & COPYRIGHT DISTINGUISHED

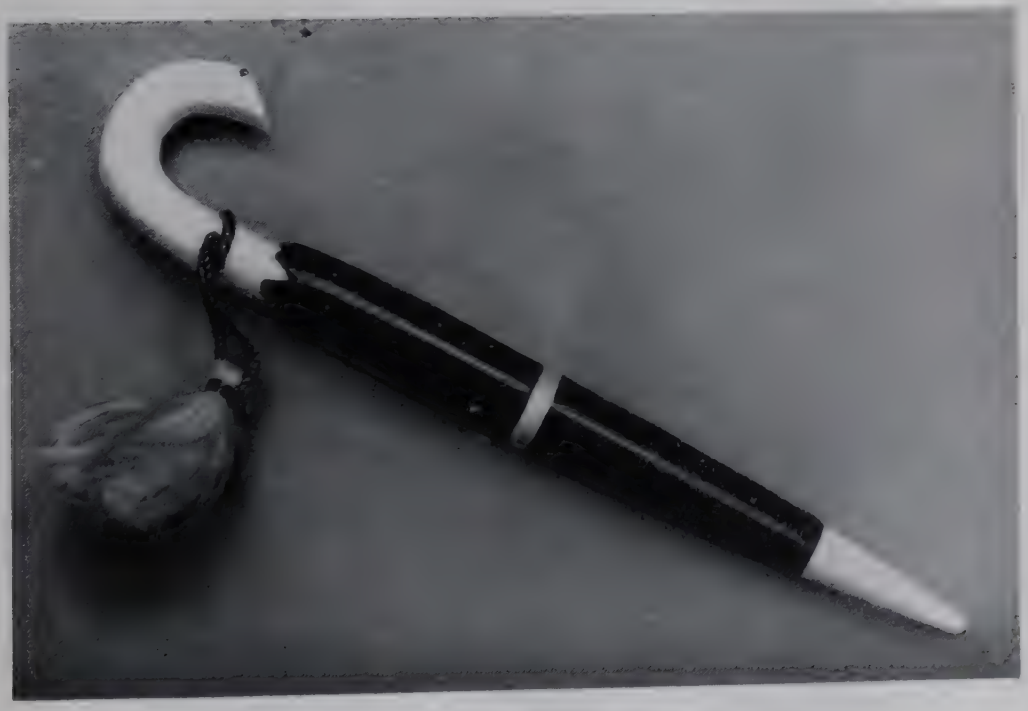
PLATE I



Improved ink flow mechanism protected by a patent

A PATENT

PLATE II

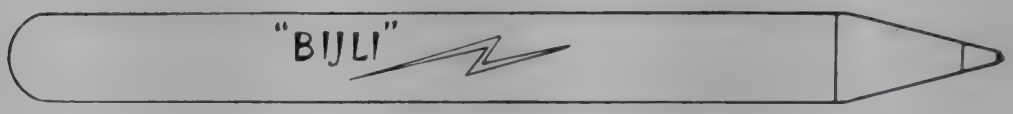


A design for a Fountain Pen

A DESIGN

# PATENT, DESIGN, TRADE MARK & COPYRIGHT DISTINGUISHED

PLATE III




**'BIJLI'**
Trade Mark for a
Fountain Pen

A TRADE MARK

---

PLATE IV

There was an old man in Copenhagen
Who never believed in a fountain pen;
Till he used the patented device,
And its design simply opened his eyes,
And then he fell headlong for the "BIJLI" pen.

*(This Limerick is a matter for literary copyright under the Copyright Act.)*

A COPYRIGHT

copy substantially the same Limerick for popularising their pens. Copyright law enables him to enjoy exclusive rights in the reproduction of his literary or artistic compositions.

Thus, a Patent, a Design and a Trade Mark are various species of what is collectively known as " industrial property " and they relate respectively to (*a*) the invention underlying the manufacture of a vendible product, (*b*) the external features of that product as they appeal to the eye, and (*c*) the good-will of the manufacturer or dealer trading in the product.

Plates I to IV (pages 9 & 10) illustrate the features protected under the Laws of Patents, Designs, Trade Marks and Copyright respectively.

PART II

# The Indian Patent System

## Legislation

The main provisions of patent law at present in force in India are contained in the Indian Patent & Designs Act, 1911, and the Rules framed under the Act. The Act extends to the whole of India except Jammu and Kashmir.

## Patentable Inventions.

The subject of a patent must be a manner of new manufacture. It implies firstly, that the invention must relate to a *manner of manufacture*. Secondly, the manner of manufacture must be new. Thirdly, apart from being novel, the subject of the patent must have the quality of invention or *inventive ingenuity*. Fourthly, the invention must have utility. Lastly, it must not be contrary to law and morality. These essential requirements are usually considered under the following heads:

1. Manner of manufacture;
2. Novelty;
3. Inventive Ingenuity;
4. Utility; and
5. Law and Morality.

(i) *Must be Manufactures:*

The subject matter of a patent must be a manner of new manufacture or improvement. The following are examples of what may be treated as a 'manner of manufacture':

a process or method of manufacture;
a machine or an apparatus;
a manufactured article;
a composition of matter, including chemical products.

There must be a suggestion of an act to be done or an operation to be performed by subjecting materials to manual, mechanical, chemical electrical or like operation.

In G.E.C.'s Application (see Volume 60 of the Reports of Patent, Design & Trade Mark Cases, page 1) which was for a method of extinguishing incendiary bombs, Morten, J., laid down that a method or process should be considered a manner of manufacture if it:

(i) results in the production of some vendible product, or

(ii) improves a vendible product or restores it to its former condition, or

(iii) has the effect of preserving from deterioration some vendible product, to which it is applied.

Applying the above criterion, the Court held that a method of extinguishing incendiary bombs was not a ' manufacture ' and could not, therefore be patented.

The following are not treated as ' manners of manufacture ':

a mere idea or suggestion;
a mere discovery, in so far as it does not result in a manner of new manufacture;
method of doing business or accounting;
the playing of a game;
a gymnastic exercise;
printed matter;
a manner of new agriculture, *e.g.*, agricultural or horticultural processes;
a chemical compound, as such, without reference to the process of its manufacture.

However, the *implements* of accountancy, games, etc., may be manufactured things and hence patentable if new. It should be noted that Indian Patent law differs from American & British patent law in that a new chemical compound as such cannot be patented in India. For instance, a recent patent granted in America for streptomycin and process of preparation has a broad

product claim which reads as follows: " Streptomycin ". In India such a claim would not be allowed. But a patent can be obtained for a chemical compound " when made " by a patentable method.

*Plant patents are not granted in India:*

In the U.S.A. there is a system for granting plant patents, *i.e.* for any distinct and new variety of plant, other than a tuber-propagated plant, which is asexually reproduced. Very recently the Union of South Africa has followed suit and has extended her Patent Law in almost exactly similiar terms. It will be of interest to examine whether the law in the U.S.A. has had the expected effect of encouraging progress in agriculture. This may provide some guidance as to whether it would be of benefit to India to follow the American example.

(ii) *Must have Novelty:*

An invention which has already been publicly used in India or made publicly known in India cannot thereafter be patented. An exception is provided in the case of disclosure of inventions at exhibitions or publication of papers by readings before learned societies or in their transactions. But even in such cases the inventor has to safeguard his interest by notifying the Patent Office prior to the disclosure.

The mere fact that an invention is already known or published abroad does not constitute a bar to the patenting of the invention in India, provided such publications have not arrived in India.

The secret working of an invention on a commercial scale, *i.e.*, not merely by way of reasonable trials or experiments, would be fatal to the novelty of an invention, except when such working has been authorised by a Government Department.

(iii) *Must have Inventive Ingenuity:*

In addition to being new, the subject matter must show the quality of invention. It must involve an inventive step having regard to what was publicly known or publicly used in India prior to the date of the patent. The improvement effected must not

be the result of mere mechanical skill; it must not be obvious to a person skilled in the relevant field of manufacture.

The degree of inventive ingenuity required is not high. Provided there is some inventive merit, the actual quantum of invention is immaterial.

There are no clear-cut principles for deciding whether invention is present in a particular given instance. One court may hold that an alleged invention does not in fact amount to an invention. But another judge or tribunal may, on the basis of the same facts come to the opposite conclusion.

As an American Judge has remarked, ". . . . mere judicial discretion is sometimes very much interfered with by prejudice, which may be swayed and controlled by the merest trifles such as the toothache, the rheumatism, the gout, or a fit of indigestion . . . . . or the smell or look of a peculiar coat, or things more trival than those." Another writer humorously remarks, "The question whether invention is present or not depends on whether the court has understood the invention. If it has, then there is no invention."

Some attempt has been made to define a few broad principles to determine whether the quality of invention is present in a given case or not. Most of these principles try to state what is *not* invention. For instance, mere new use of a known article does not amount to an invention if such use would be obvious to anyone who applied his mind to the problem. Thus the use of an ink-pot as a paper-weight is not obviously an invention. But in many cases new use of a known substance or article may have sufficient inventive merit. In fact, every new invention can be analysed into its known elements and defined as a combination of the known elements. The matter in dispute usually boils down to this: whether a given combination of known factors is inventive or not. If the combination achieves such a strikingly new result that a lingering sense of surprise is left in the mind, there can be little doubt that invention is present. There is the classic example of Alfred Nobel mixing the voilently explosive guncotton with the still more violent explosive nitroglycerine, to produce

a mixture having not greater, but lesser, explosive properties than either of the two explosives.

Another striking case is an invention by Edison relating to telephone diaphragms. To make the diaphragm sensitive, one would naturally think of mounting it as loosely as possible. But Edison's solution was to clamp the diaphragm firmly in position —Lo & behold! the sensitiveness was much greater than when the diaphragm was loosely mounted.

Another useful evidence of invention is whether many people had been trying unsuccessfully for a long time to solve a problem. If so, the first to solve it can no doubt claim to be an inventor, particularly so if he achieves a result which experts had hitherto declared as impossible or unlikely of achievement.

The fact that an invention has been commercially very successful can sometimes support the view that the invention meets a hitherto unfulfilled demand; but such evidence can hardly be conclusive because the commercial success may have been due to salesmanship, publicity, sudden shifts in public demand and fashion, or numerous other causes.

*Simplicity is no bar :*

A patent cannot be refused on the ground that the invention is simple. In fact, the more simple the solution of a problem, more ingenious is it considered to be. Not a few simple ideas have turned out to be quite patentable and meritorious. The following are a few examples of simple inventions which resulted in valid patent:

(*a*) improving a plain hair pin by providing a few bends on its arms;

(*b*) leaving blank space across the middle of a newspaper page, so that the paper could be read folded transversely as well as vertically;

(*c*) arranging a cinema ticket so that it can be torn in half either way and all necessary information will still appear on each half;

(*d*) the first successful flying machine: early contraptions which never flew were extremely complicated, whereas the real invention in heavier-than-air machines was one of such extreme simplicity that it is amazing no one had ever hit upon the solution of the problem before.

These and many other examples which can be cited to show that simplicity should be taken as an indication of invention rather than the contrary.

(iv) *Must have utility:*

A patent cannot be obtained for a useless device. But a high degree of usefulness is not essential. Comparative utility is also not required. But it is necessary that the invention should actually achieve what it sets out to do. A machine, for instance, which will not work at all in practice, cannot be patented.

(v) *Must not be contrary to law and morality:*

Yet another requirement is that the subject matter of a patent should not be contrary to law or morality. Thus an apparatus for gambling, or an appliance for burgling houses or a method of adulterating foodstuffs would not be proper subject matter for a patent.

## Who is the Inventor?

Obviously, one who originates an invention is an inventor. If two or more inventors make the same invention independently of each other, one who first applies for a patent will be considered to be the true and first inventor even if, in point of time, he made the invention after others had made it.

A person who imports an invention from abroad is also entitled to be regarded as the true and first inventor. Thus when an invention is communicated from abroad to a person resident in this country, the communicatee can claim himself to be the true and first inventor of the invention.

*Employer and employee:*

The employer's right to the ownership of any invention made

by an employee is a matter which can be regulated by specific agreement between the employer and the employee. In the absence of such an agreement, the question has to be decided according to the facts of each case. Broadly speaking, the following tests are applied:

(A) The employer has no right to the employee's invention: —

(1) unless the employer had suggested the broad idea which results in the invention;

(2) if the invention is in a field wholly outside the scope of the employer's business;

(3) even where the invention is connected with the employer's business, if the employee's invention is outside the scope of his proper work.

(B) But if the invention is concerned with matters within the scope of the employee's proper work, the invention is the property of the employer, whether or not it was made in the employer's time. Thus if a person is employed specially to make an invention, the invention made by the employee belongs to the employer.

(C) In the case of a person who is not specially employed to make an invention, the invention belongs to the employee; but if for developing the invention the employee has utilised the facilities provided by the employer, the latter will be entitled to the free use of the invention, even if the employee patents the invention.

(D) If a workman is employed for assisting in the development of an invention, he cannot claim joint inventorship if the assistance given by him is such as could be rendered by any other workman skilled in the particular trade. But if the workman's contribution is of an inventive nature, he is entitled to claim joint inventorship or independent inventorship of that part of the invention for which he is responsible.

(E) A person who makes a casual suggestion to another who is engaged on a problem, has no claim to inventorship.

*Fraud :*

Patent rights obtained by application in fraud of the true and first inventor can be challenged by filing an opposition to the grant of the patent, or by instituting revocation proceedings against the patent after it has been granted. Where a patent is revoked or its grant refused on grounds of fraud, the patent may, on application, be granted to the true and first inventor. The publication or use of an invention or a patent application made in fraud of the true and first inventor will not invalidate any patent granted to him later. It is, however, necessary that the true inventor must act with reasonable diligence after learning of the fraudulent use and must apply for a patent within six months of the commencement of such use. As these remedies are rather illusory and uncertain, it would be wise to avoid having to invoke them, by filing the application before any possibility of disclosure can arise.

*Who can apply for a Patent?*

An application for a patent can be made by any person whether he is a citizen of India or not, and whether alone or jointly with any other person. Thus the inventor himself can apply, but he need not necessarily do so. He can assign his invention to someone else, in which case the latter can apply. Alternatively, the inventor can join himself with others in filing an application. In case an invention is communicated or imported to this country from abroad, the communicatee or importer can apply for the patent; it is also open to the foreigner to apply directly.

Both firms and corporations as such may apply for and receive patent grants.

If an inventor dies before filing his application, it can be filed by his legal representative, *e.g.*, his executor or administrator.

*Government servants :*

The following categories of Government servants are governed by special regulations in the matter of applying for or obtaining patents :

(i) Defence Services, in the Indian Navy and in the Indian Air Force;

(ii) those employed on scientific and technical research;

(iii) railway servants.

Other government servants are at liberty to apply for a patent directly to the Patent Office subject to any special orders applicable to them in any particular department.

## The Specification

A specification may be either a Provisional Specification or a Complete Specification.

The idea of the *provisional specification* is to enable the inventor to protect his invention even before he has fully developed the practical details of the invention. Thus in the provisional specification he need only describe the nature of the invention, whereas in the *complete specification* he has not merely to state broadly what his invention is, but he has also to define his invention by a separate statement of claims in precise terms and also 'particularly describe and ascertain the manner in which the invention is to be carried out in practice'. The best method known to the applicant for practising the invention should be described in the complete specification.

A model of a Complete Specification is given in pages 34 to 37.

Fees:

(i) If the application is made on the basis of a provisional specification:—

| | | |
|---|---|---|
| (*a*) on filing the application | ... | Rs. 10/- |
| (*b*) on filing the complete specification | ... | Rs. 20/- |
| (*c*) for sealing a patent | ... | Rs. 30/- |
| Total | ... | Rs. 60/- |

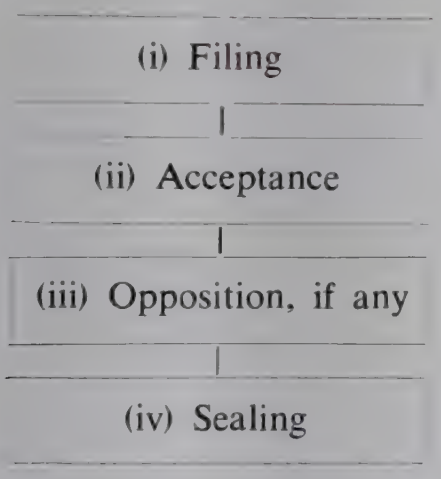
(ii) If the application is made on the basis of a complete specification:—

| | | |
|---|---|---|
| (*a*) on filing the application | ... | ... Rs. 30/- |
| (*b*) for sealing the patent | ... | ... Rs. 30/- |
| | TOTAL | ... Rs. 60/- |

It will be seen that if an applicant files a provisional specification, he pays only Rs. 10/- in the first instance, and he can pay the remaining Rs. 50/- in two stages. He is not obliged to pay the entire amount of Rs. 60/- even if he abandons the application or the grant of a patent is refused. If the application is abandoned or refused at any stage, no fee is payable for any subsequennt proceeding.

*Procedure for obtaining a Patent:*

The main stages of the procedure for obtaining a patent are shown in the following diagram:




(i) *Filing:*

For filing an application the documents required are a duly executed application on a prescribed form and a Provisional or a Complete Specification in duplicate. In the case of a Complete Specification drawings in duplicate should be furnished if the invention is capable of being illustrated.

When filing the application the prescribed fee should be paid.

Where the application is made on the basis of a Provisional Specification, it must be followed up by a Complete Specification within nine months of the date of the application. An extension of time by one month is available on request on payment of a fee.

It will be seen that the filing procedure may consist of either two distinct stages or only a single stage, *i.e.*, either:

(*a*) Filing Provisional Specification in the first instance and

(*b*) Following up with a Complete Specification.

OR

Filing Complete Specification in the first instance.

(ii) *Examination :*

When a Complete Specification is filed, it is examined by the Patent Office to check up if the documents have been drawn up properly and whether the invention has been fairly described and ascertained and whether what is defined by the claims is *prima facie* a manner of new manufacture or improvement.

If the Patent Office is not satisfied on any of these matters, the documents are returned to the applicant for amendment. Thus the documents may be exchanged between the applicant and the Patent Office a number of times before an application is accepted by the Patent Office.

(iii) *Acceptance :*

Applications found to be in order allowed are "accepted" by the Controller.

Until an application has been accepted, the Patent Office is required to treat it as confidential. But as soon as it is accepted,

it becomes open to public inspection. The acceptance is notified in the Gazette of India, Part III, Section 2.

(iv) *Opposition :*

Before a patent is sealed, an opportunity is given to the public to oppose the grant of the patent on certain grounds, which are specified in Section 9 of the Indian Patents & Designs Act, 1911. The period available for filing an opposition is four months from the date of the gazette in which the acceptance is notified.

The opposition to the grant of a patent may be based on challenging the following matters :

(i) the inventorship;

(ii) the novelty of the invention and

(iii) the fairness and sufficiency of the specification.

On an opposition being filed, the parties are given opportunities to file statements and to adduce evidence in support of their contentions, and the matters in issue are decided by the Controller after hearing the parties if they desire to be heard.

Opposition proceedings provide the forum for the Controller to adjudicate upon the claims of rival inventors as to inventorship.

*Disputes between joint applicants :*

If a dispute arises between joint applicants as to proceeding with the application, the patent may be granted to any of the joint applicants even if the remaining joint applicant or joint applicants refuse to proceed with the application.

Similarly, if an applicant who has agreed to assign the patent to another party or to a joint applicant refused to proceed with the application, the aggrieved party can have the patent granted to himself.

*Sealing :*

If there is no opposition, or in the event of an opposition, if the decision is in favour of the application, it is '*sealed*' on

payment of the requisite fee and on filing a formal request for sealing. The deed which is issued as evidence of the grant of the patent is known as the " Letters Patent ", or sometimes simply as the " Patent ".

*Sealing of a patent is ' prima facie ' evidence of its validity :*

The fact that a patent has been sealed is *prima facie* evidence that the patent is valid. But the sealing of a patent does not amount to a guarantee that the patent is valid. In case of dispute, the validity of the patent can be contested in a Court of law.

## Time Limits

1. The normal time limit for filing a complete specification following one or more provisional specifications, is nine months from the date of the earliest provisional specification. It can, on application be extended by one month.

2. The normal time limit for the " acceptance " of an application is eighteen months from the date of the application; it can, on application, be extended by three months.

3. The time limit for opposing the grant of a patent is four months from the date of the Gazette notification of the acceptance of the corresponding application.

4. The normal time limit for the sealing of a patent is twenty-four months from the date of the application. It can, on application, be extended by three months.

## Rights of the Applicant for Patent

(i) Any person who files an application for a patent enjoys " Provisional Protection " until the patent is sealed. By virtue of this provisional protection, the public use or the publication of the invention at any time between the date of application and the date of sealing will not prejudice the sealing or the validity of the sealed patent.

It should be noted that there is no entity known as a " provisional application " or a " provisional patent ". If an invention

is disclosed to the public after filing an application for patent, no valid patent of a subsequent date can be obtained if the original application is allowed to lapse.

(ii) Any person who files an application on the basis of a provisional or complete specification in the prescribed manner is entitled to have his application serially numbered and dated.

(iii) Any person who files an application on the basis of a provisional specification becomes entitled to file his complete specification within the prescribed period.

(iv) Any person who files two or more provisional specifications for inventions which are cognate with one another, is entitled to file a single complete specification in respect of two or more of the said provisional specifications, subject to time limits already mentioned.

(v) Any person who files a complete specification becomes entitled to have his application officially examined and accepted or refused.

(vi) Any person whose application is refused by the Controller becomes entitled to file an appeal from the Decision of the Controller.

(vii) Any person whose application is accepted by the Controller becomes entitled to all the rights as if a patent had been sealed on his application, except that he cannot take legal proceedings for infringement, until the patent has been actually sealed.

(viii) An applicant (as well as an opponent) is entitled to file an appeal to the Central Government from the Decision of the Controller in any opposition proceedings in respect of the application opposed.

*The date of the Patent :*

Although the actual sealing of a patent takes place long after the date on which the patent application was filed, the patent is dated and sealed as of the date of the application. An exception to this rule is in the case of certain special patents (*vide* page 31). It should be noted that although ordinarily the date

of the application is the date on which it was actually filed, the application may be post-dated where the documents filed are seriously defective. In some cases the date of the patent may be earlier than the date of filing. For instance, when a patentee files a complete specification based on a number of provisional specifications filed with a number of applications of different dates, the date of the patent would be the date of the earliest of such applications. Where the application is thus post-dated or ante-dated, the date of the patent is the date to which the application has been ante-dated or post-dated.

*Term of a patent :*

Except in the case of a Patent of Addition (*vide* page 31), the normal term of a patent is sixteen years. This is subject to (i) payment of annual renewal fees, which become due on expiry of the first four years of the patent; and (ii) the patent not being revoked or declared null and void earlier.

*Rights of the Patentee :*

The act lays down that a patent confers on the patentee the exclusive privilege of making, selling and using the invention throughout India and of authorising others to do so. It means that the patentee has the right to exclude others, if he so chooses, from working the patented invention or selling or using it. But the validity of a patent can be questioned in a Court and the patent may be revoked. Moreover, if a patentee misuses or abuses his rights, he can be compelled to grant licences.

The following are the main grounds on which the validity of a patent can be challenged before a High Court by filing a petition for revocation of the patent:

(i) The invention is lacking in

(*a*) novelty;
(*b*) inventive merit;
(*c*) utility.

(ii) The specification of the invention on which the patent is founded is insufficient, inexact or misleading.

*Rights in Patents for improvements :*

A person who makes an improvement over a patented invention can apply for a patent for the improvement. He is not required to make the patentee of the original invention a party to the application for patent for the improvement. But when it comes to working an improvement patent, the permission of the owner of the master patent becomes necessary. In such situations there is often an exchange of licences between the two patentees so that neither party suffers. If a party takes up an obstinate attitude and refuses to part with rights by sale or licence on reasonable terms, the aggrieved party should consider the advisability of resorting to provisions against the abuse of patent rights. The patentee of the original invention is not entitled to use improvements patented by another, except with the consent of the latter.

*Rights of Joint patentees :*

When a patent is granted to two or more persons jointly, they are treated as joint patentees. Each joint patentee is at liberty to use the invention for his own benefit, but licences for working the invention cannot be granted without the consent of all the joint patentees.

*Restrictions on patent rights :*

The rights and privileges granted by a patent are subject to the following limitations:

(i) The patent does not confer on the patentee the right to work the patented invention if such working would infringe any prior patent which is in force.

(ii) Even though a patent is binding on the Government and has the like effect as against Government as it has against any person, a patentee cannot prevent the Government from using a patented invention for purposes of the Government. The Government would not be liable to pay any royalty to the patentee only if, prior to the date of the patent, the invention was tried or recorded in a document by any Government Department, and if

such invention was not communicated by the patentee. In other cases Government would be liable to pay royalties to the patentee. (See also at page 19 regarding the rights of Government Servants to apply for patents.)

(iii) The validity of the patent can be questioned by any person in an infringement suit or in a proceeding for the revocation of the patent.

(iv) The continuance of the patent is subject to the payment of an annual renewal fees in respect of the patent after the fourth year of the patent. No renewal fees are, however, payable in respect of a Secret Patent or a Patent of Addition.

(v) The Controller is vested with powers to grant compulsory licences to prevent the abuse of patent monopolies and his order is subject to appeal only to the High Court of Calcutta.

(vi) Any person interested can, by applying to the Controller, obtain a licence under a patent in respect of articles of food, medicines, surgical and curative devices, insecticides, germicides, fungicides and any other substance notified by the Central Government.

(vii) A patent may be revoked by notification of the Central Government that the patent is mischievous to the State or generally prejudicial to the public.

(viii) Unless the patented article is marked with the word "Patent", giving also the year and number of the patent, the patentee will not be able to recover damages from an innocent infringer of the patent.

*Infringement of Patents*:

A patentee can institute proceedings for infringement against any person who, while the patent is in force, makes, sells or uses the invention without the patentee's licence. An infringement suit should be instituted in a District Court, but if the defendant makes a counter claim for revoking the patent, the suit and the counter claim are transferred to the High Court for decision.

*Register of Patents*:

A Register of Patents is maintained at the Patent Office as a statutory requirement. This is an official record of information concerning all matters affecting the rights and interests in patents, such as the names and addresses of the grantees of the patents and their assigns and legal representatives and of persons who have interests in the patents as licensees or mortgagees. The formal notifications in the Register are of importance in commercial and legal dealings concerning patents and designs.

A person registered as the proprietor of a patent has, subject to the rights appearing from the Register, the power absolutely to assign, grant licences, or otherwise deal with the patent and to give effectual receipts for any consideration regarding any such dealing.

*Supplementary Proceedings*:

(i) *Renewal*

Annual renewal fees have to be paid if a patent is to be kept in force beyond the first four years of its term. No renewal fee is payable on a Secret Patent or on a Patent of Addition. The scale of renewal fees is as follows:

(1) From the 5th to the 8th year ... Rs. 50/- per year.

(2) From the 9th to the 12th year ... Rs. 100/- per year.

(3) From the 13th to the 16th year ... Rs. 150/- per year.

(4) If the term of a patent is extended beyond 16 years, for each year of the extended term ... ... Rs. 150/- per year.

The due dates for paying renewal fees are to be reckoned from the date of the patent. It should also be noted that renewal fees should be paid *before* the commencement of the year for which the fee is due.

The payment of a renewal fee is not obligatory for the patentee, if he proposes to let the patent lapse and if at any time he does not consider it worthwhile to incur expenses by

way of renewal fees. It is also permissible to pay all or any of the renewal fees in advance. If the payment of renewal fees is delayed beyond the due date, the patent will be deemed to have ceased. But an extension of time up to 3 months from the due date can be obtained on payment of penalty of Rs. 10/- for one month, Rs. 20/- for two months and Rs. 30/- for three months beyond the due date.

(ii) *Restoration*

If a ceased patent is not revived within three months special proceedings have to be taken for getting it "restored". The restoration of a lapsed patent is permitted only if the Controller is satisfied that the patentee had no intention to allow the patent to lapse and that he had acted diligently as soon as the cessation of the patent came to his notice.

(iii) *Extension of the term of a Patent :*

A petition for the extension of the normal term of a patent may be made to the Central Government during the sixteenth year of the patent, but at least six months before the expiry of the sixteenth year. Such a petition can be made only on the ground that the patent has not been adequately remunerative due to circumstances beyond the control of the patentee. If the Central Government is satisfied that the profits made by the patentee have not been commensurate with the nature and merits of the invention, it can extend the normal term of the patent by such period as it thinks fit, up to a maximum of ten years.

(iv) *Amendment*

Sometimes an applicant or patentee may find that some error has crept into his application or specification or that he has made his claim broader than he ought to have. Or he may feel that some portions of the documents require fuller explanation. The law allows him to introduce these changes provided no suit for infringement or no proceeding for the revocation of the patent is pending. But no amendment would be allowed which would

make the specification as amended claim an invention substantially larger than, or substantially different from, the invention originally claimed.

(v) *Appeals :*

Any person aggrieved with any Decision of the Controller affecting an application for the grant of a patent, or an opposition to the grant of a patent, or an application for restoring a lapsed patent, or an application for amending any application or specification, can prefer an Appeal to the Central Government, whose decision will be final.

## Special Patents

*Patent of Addition :*

Sometimes an inventor makes further improvements or modification of the invention protected by a substantive patent. These can be protected by a Patent of Addition. The advantage of taking out a Patent of Addition is that no renewal fees need be paid for its continuance. But the term and scope of a patent of Addition are limited by those of the substantive patent. Secondly, an application for a Patent of Addition can be made only by the original applicant or the registered proprietor of the original patent.

*Secret Patents :*

A Secret Patent may be obtained for an invention relating to instruments or munitions of war, if the Central Government consider it advisable to keep the invention secret. Inventions for which secret patents are obtained must be assigned to the Central Government. No fees are payable for applications for secret patents. An application for a secret patent should be made by the inventor himself.

*"Priority" Patents :*

Certain reciprocal 'priority' arrangements exist between India, on the one hand, and the following Commonwealth coun-

tries, (and the state of Eire) on the other hand:

Australia, Canada, Ceylon, New Zealand, the United Kingdom, the Union of South Africa and Pakistan.

Under these 'priority' arrangements, any person who files a patent in India can file a patent in any of the above countries within twelve months of the date of his application in India and claim that the benefit of the Indian filing date shall be given to him for his patent applications in any of these foreign countries. Similar priority can be claimed in India by foreign applicants who file applications in one or more of the countries above. Thus a person who first files a patent in the U.K., for example, and then files a corresponding patent in India within one year of the date filing in the U.K., will be entitled to claim the British Priority date in India. Similarly a person who first applies in India for a patent can file in a corresponding patent in the U.K. within one year of the Indian filing date and have his British patent ante-dated to the date of filing in India.

### International Convention

India is not a party to the International Convention which has been signed by a number of countries. As a result, reciprocal arrangements of the type mentioned above do not exist between India and any foreign country outside the Commonwealth. Thus while U.S.A. is a party to the Convention, India is not. Indian and American inventors would not therefore get those mutual advantages which American and British inventors for example would get. The scope of the International Convention is not restricted to priority matters only but extends also to other spheres, *e.g.* with regard to designs, trade marks and other forms of industrial property. The question therefore whether India would not stand to benefit by joining the International Convention requires careful consideration.

### The Patent Office

The Patent Office is the hub of the patent system. Its duties include the granting of patents for inventions after due proceedings. It is also concerned with the registration of industrial designs. It is under the immediate control of the Controller of

Patents and Designs, who acts under the superintendence and direction of the Central Government. It has a large of technical experts known as Examiners and Assistant Examiners whose business it is to examine applications for patents and to assist the Controller in his various duties.

*Publications of the Patent Office :*

The Patent Office issues periodically publications containing information about the Indian Patent system and Indian Patents. The publications include the following:

The Patent Office Handbook.
A Guide to Inventors.
Specifications of Inventions.
Weekly notifications in the Gazette of India.
The Patent Office Journal: this annual publication includes a subject matter index classifying patents according to the various branches of industry.
Annual Reports of the Working of the Patent Office.

*Inspection Centres :*

The Patent Office at Calcutta has an inspection centre for its own publications as well as important publications of British, American, Australian and Canadian Patent Offices. The Government has recently opened Patent Inspection Centres in many important towns for the convenience of the general public. Patent literature can be inspected free of charge at these Inspection Centres.

*The Central Government :*

The Central Government is the supervisory authority over the Patent Office and it functions also as an appellate authority over the Controller of Patents and Designs in connection with proceedings prior to the grant of the patent, amendment proceedings and restoration proceedings. It is also the original authority to grant the extension of the normal term of a patent. It is further empowered to make rules for regulating the proceedings at the Patent Office.

# FACSIMILE OF A PATENT SPECIFICATION

GOVERNMENT OF INDIA.

THE PATENT OFFICE.
214, Lower Circular Road, Calcutta-17.

## PROVISIONAL SPECIFICATION

## No. 37368

Application No. 37368, dated 10th May 1947.

Complete Specification left on 10th February 1948.

Accepted 20th February 1948.

## IMPROVEMENTS IN OR RELATING TO TOOTH-BRUSHES.

SHRIRAM BALKRISHNA DESHAPRABHU, Assistant Editor, Journal of Scientific and Industrial Research, Military Barracks, The Mall,—Delhi, an Indian.

*The following specification particularly describes the nature of the invention.*

This invention relates to improvements in or relating to tooth-brushes.

The tooth-brush hitherto known is operated by means of a handle, to one end of which a brush is affixed. It is well-known that such brushes do not fully meet the requirements of mouth hygiene and constant efforts have been made to improve the efficiency of the tooth-brush by changing the shape and composition of the bristles and by modifying the design of the handle.

I have invented a highly efficient device for ensuring better mouth hygiene and particularly for cleaning the teeth and gums. The device is an improved tooth-brush consisting of a brush provided with an attachment for affixing the brush to a finger whereby the brush may be operated by digital manipulation.

The brush may be affixed to any finger. When fixed to the thumb, it is particularly useful for cleaning the backside of the upper row of teeth and the upper gum.

The brush head may consist of a set of bristles permanently or removably attached to a base. The base may be flexible or rigid. The flexible base has the advantage that it would facilitate digital manœuvrability of the brush in accordance with the natural contours of the mouth. The finger attachment may be of diverse designs. For instance, it may consist of two rings affixed to the brush or the brush base. The rings may be easily prepared, e.g. of elastic string material. All that is necessary to work the brush is to insert the finger through the rings, whereby the brush firmly attaches itself to the finger and is ready for cleaning the teeth in the manner of an ordinary tooth brush.

It will be seen that my device is the first finger operated tooth-brush. It has obvious hygienic and economic advantages. For instance, it en-

ables direct digital manipulation whereby greater facility of movement and efficiency of the brush is obtained than in the case of the ordinary tooth brush, where a handle intervenes and renders direct digital manipulation impossible. My tooth-brush, moreover, completely does away with the need for a handle, thereby considerably reducing manufacturing costs. A further advantage is that the bristles in my brush may be made considerably shorter in length than in ordinary brushes, thereby effecting greater economy in the cost of production.

S. B. DESHAPRABHU

Dated this 1st day of May 1947.

## COMPLETE SPECIFICATION

## IMPROVEMENTS IN OR RELATING TO BRUSHES FOR CLEANING TEETH OR FOR LIKE PURPOSES.

SHRIRAM BALKRISHNA DESHAPRABHU, Assistant Editor, Journal of Scientific and Industrial Research, P-Block, Raisina Road, New Delhi, a National of the Dominion of India.

*The following specification particularly describes and ascertains the nature of this invention and the manner in which it is to be performed.*

This invention relates to improvements in or relating to manufacture of brushes for cleaning teeth or for like purposes.

The tooth-brush hitherto known is operated by means of a handle, to one end of which a brush is affixed. It is well known that such brushes do not fully meet the requirements of mouth hygiene and constant efforts have been made to improve the efficiency of the tooth-brush by changing the shape and composition of the bristles and by modifying the design of the handle.

I have invented a highly efficient device for ensuring better mouth hygiene and particularly for cleaning the teeth and gums. The device according to my invention is particularly suited for use as a tooth-brush and consists of a set of bristles in combination with means for holding the bristles and for affixing the brush to the finger. The means for affixing the brush to the finger may form an integral part of or may be affixed to the brush base.

The brush may be affixed to any finger. When fixed to the thumb, it is particularly useful for cleaning the backside of the upper row of teeth and the upper gum. A brush manufactured according to my invention may be put to other uses, e.g. for brushing rails, jewellery or the like.

The invention will now be described with reference to the accompanying drawings wherein Figs. I & II represent side and top views of a tooth-brush manufactured according to my invention. Figs. III, IV and V represent different types of finger attachment, and Fig. VI is a perspective view of one such tooth-brush affixed to a finger. It is to be noted that the drawings are merely illustrative and that the scope of my invention is not restricted to the embodiments depicted therein.

The brush head may consist of a set of bristles 1 attached to a base 2 The finger attachment may be of diverse types and may either form

an integral part of the brush base as in Figs. I, II, III or V or may be a separate component as in Fig. IV. It may consist of elastic or rigid rings affixed to or projecting from the brush base. Figs. I and II show a finger attachment consisting of two rings 4 and 5 projecting from the brush base 2. Fig. IV shows rings 8 and 9 made out of elastic string material and slid round the brush base. Fig. III shows a finger attachment consisting of pincers, preferably two in number, viz. 6 and 7 projecting from the brush base. Fig. 7 represents yet another type of finger attachment consisting of the brush base 10, the longitudinal edges 11 and 12 whereof are adapted for grasping the finger by turning them backwards towards each other. All that is necessary to work the brush is to insert the finger into the finger attachment as in Fig. VI whereby the brush firmly attaches itself to the finger and is ready for cleaning the teeth in the manner of an ordinary tooth-brush.

It will be seen that my device is the first finger operated tooth-brush. It has obvious hygienic and economic advantages. For instance, it enables direct digital manipulation whereby greater facility of movement and efficiency of the brush is obtained than in the case of the ordinary tooth-brush, where a handle intervenes and renders direct digital manipulation impossible. My tooth-brush, however, completely does away with the need for a handle, thereby considerably reducing manufacturing costs. A further advantage is that the bristles in my brush may be made considerably shorter in length than in ordinary brushes, thereby effecting greater economy in the cost of production.

I claim:—

1. A brush for cleaning teeth or like purposes which consists of a set of bristles in combination with means for holding the bristles and for affixing the brush to the finger.

2. A brush as claimed in Claim 1 wherein the means for affixing the brush to the finger form an integral part of the brush base.

3. A brush as claimed in Claim 1 wherein means for affixing the brush to the finger are attached to the brush base.

4. A brush as claimed in Claims 1-3 wherein the finger attachment consists of rings affixed to or projecting from the brush base.

5. A brush as claimed in Claims 1 and 3 wherein the finger attachment consists of rings of elastic sting material slid round the brush base.

6. A brush as claimed in Claims 1-3 wherein the finger attachment consists of pincers affixed to or projecting from the brush base

7. A brush as claimed in Claims 1-3 wherein the finger attachment consists of the brush base, adapted for grasping the finger by turning the longitudinal edges backwards towards each other.

8. Brushes for cleaning teeth or for like purposes manufactured substantially as hereinbefore described.

S. B DESHAPRABHU.

Dated this 1st day of May 1947.

## FACSIMILE OF THE DRAWINGS

ONE SHEET

NAME OF APPLICANT—S. B. DESHAPRABHU
37368 [COMPLETE]

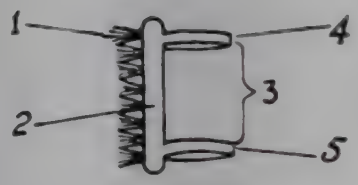



FIG. I

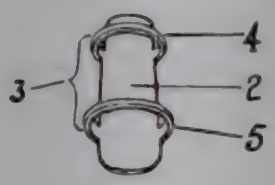



FIG. II

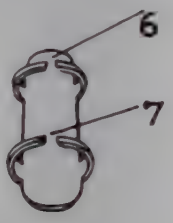



FIG. III

FIG. IV

FIG. VI

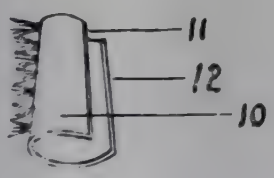



FIG. V

SIGNED- S B Deshaprabhu

PART III

# Practical Hints

*Make a Patents Search before starting to invent :*

An important source of information concerning prior knowledge is provided by patent literature, that is, prior patent specifications and other publications of the Patent Office. Indian patent specifications, numbering some 50,000, are printed, abridged, classified and indexed. Free Inspection Centres for Patent Literature have been opened in many important cities.

An inventor who desires to apply for a patent for his invention usually desires to know whether his invention has already been patented by someone else, and not infrequently, he finds that it has been already patented. In such a case, the time and money spent by the inventor in re-inventing what was already invented by someone else were wasted and the inventor is naturally seriously disappointed. Inventors can escape such disappointments if they start inventing only after a patents search has been done to ascertain what other inventors have done to solve the problem which they themselves would attempt to solve. In other words, it is a wise policy to start the process of inventing with a patents search as the preliminary step. If the inventor has already made an invention, he can, either himself or through a Patent Agent, search this literature to make sure if his invention is new. A search is also likely to give him fresh ideas and the knowledge of what others have done or not done would be of much use to him in dealing with his own invention.

2. *Have clear understandings with employers and employees :*

In very many cases, the inventor is either an employer or an employee, and at the time of developing any particular invention, his connection with his employees or with his employer (as the case might be) would be cordial. As soon as a valuable invention has been evolved and developed, serious misunder-

standings are liable to arise between employers and employees firstly, as to which of them was the true "inventor", and secondly, as to whom the said invention belongs for commercial exploitation. As a result of such misunderstandings the validity of the patent that might be granted is jeopardised and expensive litigation might become inevitable. All this could be obviated if employers and employees have service agreements which clearly define their respective rights in the inventions made in the course of the employment.

3. *Keep records :*

Every inventor should keep a brief memorandum of the experiments conducted by him from day to day and the results obtained. He should also preserve vouchers, of materials ordered by him for his experiments and receipts for payments made. All these records constitute valuable evidence for proving inventorship, and the absence of such records have, in many instances, been a great handicap to inventors, when unscrupulous persons claimed that they were the real inventors and that the Applicants for Patents had obtained the inventions from them.

4. *What are the practical steps to be taken as soon as an invention has been made?*

The most important step to take as soon as an invention has been made is to secure provisional patent protection for it before it is disclosed to the public. This can be done by filing a patent application with either a provisional or a complete specification.

There is a double object in filing a patent application as soon as possible, firstly, to obtain freedom for disclosing the invention, and secondly, to obtain priority over other possible rivals.

5. *To what extent should secrecy be observed?*

Until the patent application is filed, the Inventor should not disclose his invention, except in confidence.

It happens that in the course of the development of the invention, the Inventor finds it necessary to discuss the problems with

others and to disclose to others the experiments he has been conducting to solve the problems. Again, on achieving success, the inventor very often displays his invention to high Government officials or to prospective financiers. As far as possible, such disclosures should not be made before filing the application for patent; but, if disclosure has to be made prior to filing the application, the inventor should take care to impress upon those to whom he is disclosing the invention that the disclosure is " in confidence ". Where possible, his intention that the disclosure is " in confidence " should be reduced to writing before the disclosure, or at least *immediately* after the disclosure.

After a patent has been filed, there is not much risk involved in disclosing the invention to interested parties or even to the general public, provided the specification has been drafted with sufficient care to avoid the risk of subsequent post-dating by the Patent Office. After a patent has been 'accepted' by the Patent Office, the invention is legally a published matter and there is no point in the patentee trying to preserve any more secrecy about it. A pitfall to be avoided is the tendency on the part of some inventors to be excessively secretive even after a patent application has been filed. Instances are not lacking where the inventor has waited for the patent to be actually sealed before proceeding to take steps to bring the invention to the notice of potential manufacturers and commercial interests, whereas he need have waited only till a properly drafted patent application had been lodged with the Patent Office.

6. *Can the invention be published or exhibited before an application of a patent has been filed?*

If the inventor wishes to exhibit or publish the invention before filing a patent application, he can do so only to a limited extent as provided under Section 40 of the Indian Patents and Designs Act, 1911. But even under these provisions it is important to note that a notice under the Section has to be filed with the Patent Office *before* the invention is exhibited or published as permitted under the Section.

7. *Should the application for patent be made on the basis of a "Provisional" or a "Complete" Specification?*

This is a question which gives headache to many applicants. In this connection, the following facts should be noted:—

(i) while a Provisional Specification should disclose "the nature of the invention", the Complete Specification should describe and ascertain "the nature of the invention" and "the manner in which it is to be performed";

(ii) the Government fee as well as the Patent Agents' charges (where a Patent Agent is employed) for making an application on the basis of a Complete Specification are three to four times higher than those for making an application on the basis of a Provisional Specification; and

(iii) the official Examination of an Application is not made until the Complete Specification is filed.

Having regard to these facts, it is advisable to file the application on the basis of a Complete Specification if the following conditions can be satisfied:—

(i) that the applicant is in a position to describe not only the essential idea underlying his invention, but also the method of carrying out his invention into practice;

and (ii) that he has the necessary funds to apply on the basis of the Complete Specification.

By applying on the basis of the Complete Specification, the official Examination of the application, and therefore, the sealing of the patent can be expedited.

8. *How much does it cost to take out a patent?*

The minimum cost for taking out a patent is the Government fee of Rs. 60/-, which includes the following items:

| | | | |
|---|---|---|---|
| Filing fee | ... | ... | Rs. 30/- |
| Sealing fee | ... | ... | Rs. 30/- |

If the applicant engages a Patent Agent, the latter would charge his own fee for drafting the documents and prosecuting the application. There is no standard rate of Patent Agents' fees, which may range from about a hundred and fifty to about four hundred rupees per application, depending upon the standing and practice of particular Patent Agent engaged and the complexity of the invention.

Ordinarily, in a simple and straightforward case, the total expense of obtaining a patent, inclusive of the Patent Agent's fees, is likely to be around Rs. 250/- to Rs. 350/-.

Apart from the above expenses there may be other expenses involved in individual cases. Among minor expenses may be mentioned charges for drawings, amendments, etc. In a few cases there may be proceedings of the nature of litigation, *e.g.*, if an opposition to the grant of a patent is filed by interested parties. In such cases expenses would naturally mount up. But fortunately such cases are not too frequent and in most cases the applicant or patentee can, subject to paying costs, if any, withdraw from the proceedings at any stage if he does not consider it worthwhile to go on further.

9. *Is it wise for an inventor to be his own Patent Agent?*

The value of a patent depends not only on the intrinsic merit of the invention concerned, but also upon the excellence of the specification filed in respect of the invention. The art of drafting a proper specification is one which calls for a sound knowledge of Patent Law and considerable experience.

A Patent Agent is one who is supposed to have the necessary knowledge, skill and experience and, therefore, one who can obtain the best patent for the invention. Under existing conditions Patent Agents of repute can be engaged for a sum of Rs. 250/- to Rs. 350/- for obtaining an Indian Patent, inclusive of the fees payable to the Patent Office, and it will be worthwhile to incur this expense.

If the inventor cannot muster even the two or three hundred rupees needed to take out a patent with reasonable professional

assistance in ordinary cases, he should seriously consider if the invention is at all of sufficient merit to take all the trouble of patenting it. If he feels that the invention is meritorious, but he is nevertheless not in possession of the necessary funds, a practical course would be to sound interested parties. He need not disclose the germ of the new idea except to those who would observe secrecy till a patent has been filed; but he can point out the general merits of the invention and seek financial assistance to enable him to proceed at least up to the stage of filing a patent application with proper legal advice.

It should be noted, however, that there is no official Register of Patent Agents in India, as in other countries. The choice of the Patent Agent should therefore be made after discreet enquiries.

10. *How much of the invention should be disclosed in the patent specification?*

The best method of carrying the invention into practice should be disclosed.

Applicants sometimes try to be too clever. They do not disclose all the conditions necessary for successfully carrying out their invention into practice; or even if they disclose some method of doing so, they do not disclose the best method known to them. They believe that by adopting this ruse, they could enjoy the advantage of patent protection side by side with that of secret working. They are, however, very much mistaken. For, if they do not disclose the best method known to them the patent can be revoked. Hence, it is foolish to withhold the disclosure of the best method known to the applicant. It is like the man who tries to ride on two horses simultaneously.

11. *Should the application be made in the name of the employer or in the name of the employee?*

Under the law, an application for a patent may be made (*a*) in the name of the Inventor, or (*b*) in the joint names of the Inventor and the employer, or (*c*) in the sole name of the employer. Of these three alternatives, the best is that mentioned under (*a*), pro-

vided that the interests of the employer are safeguarded by a separate agreement; that mentioned under (*c*) is unobjectionable, provided the interests of the employee are safeguarded by a separate agreement; but, unlike the alternative under (*a*) it will fail to satisfy the legitimate aspiration which most inventors have, namely, that the patents for their inventions should be sealed in their names, even if the commercial interests in the patents are to be vested in someone else. The alternative mentioned under (*b*) has nothing good in support of it. For where a patent has been granted jointly to a manufacturer and his employee, although theoretically they have equal rights, from a practical standpoint the manufacturer can use the patented invention for his own benefit without accounting for it to his co-patentee.

Further, considerable difficulties can arise if, prior to the sealing of the patent, the manufacturer and the employee fall out with each other.

12. *How to deal with official objections :*

The applicant should look upon official objections as a constructive criticism of his documents.

Before an application for patent is accepted, it is officially examined and various objections are raised by the Examiner of Patents. As a rule, the Applicant appreciates these objections and amends his documents suitably. It happens, however, that some of the official objections are untenable and in such cases, the Applicant is prone to grumble and complain, rather than satisfy the Examiner. Examiners are men with high technical qualifications and they are not likely to raise objections unless there is some basis for doing so. It should be remembered that in patent litigation the patentee will have to satisfy the Court that his documents are in order; and that if he fails to satisfy the Examiner, he is not likely to satisfy the Court, which is much less informed than the Examiner about technical matters. It is, therefore, in the interests of the Applicant to satisfy the Examiner by suitable explanations or amplifications of the description, rather than refuse to do so.

13. *Commercial exploitation of patents:*

(i) *Leave commercial exploitation to the businessman.*

There is a tendency among Inventors to attempt to exploit their patents by themselves undertaking to manufacture and sell the patented articles. This is most unwise in most cases. The Inventor's field is to invent, and the commercial exploitation is the field of the businessman. Although there are instances where the Inventor has also business capacity, for the ordinary Inventor the wisest course is to leave the commercial exploitation to a businessman or concern of good reputation and to engage himself in evolving new inventions.

(ii) *Do not venture to exploit until a saleable product could be prroduced:*

Inventors are prone to believe that as soon as an invention has been patented, manufacturers would be eagerly competing with one another for an opportunity to exploit the patented invention. In actual practice, however, the patentee finds that even if he takes the patent to the doors of the manufacturer, the latter does not evince any serious interest therein. This is because manufacturers have found that mere paper patents are not developed sufficiently for the commercial exploitation of the patented invention and that a good deal of time, money, and labour will have to be spent before the patented invention could be worked on a commercial scale. A patentee who has developed his invention for working on a commercial scale and who can show a saleable product to the manufacturer will naturally have a better chance of a successful deal with the manufacturer. In the case of mechanical inventions money spent on preparing a neat working model before approaching a manufacturer is bound to be a sound investment.

(iii) *Do not approach businessmen until the financial aspect of the patented invention has been investigated.*

A patentee should not approach businessmen until he himself has investigated the financial aspect of his invention. For this

purpose he should take into account various factors such as the capital that would be necessary for working his patent, the availability and the cost of the raw materials required, the demand for the product, the margin of profit that could be reasonably expected, etc. If on a fair investigation there is scope for making handsome profits by working the patent, the businessman can naturally be more easily induced to undertake the commercial exploitation of the patent than if a raw and unworked scheme is presented to him.

14. *Methods of Exploitation of Patents:*

What are the ways for commercial exploitation of patents?

The grantee of a patent can work the invention himself or he can permit others to do so subject to agreed terms. He can make an outright sale or assignment of his patent to another party or he can retain the ownership, allowing others to work the patent under licences. A person authorised by the patentee to manufacture or use the invention is termed the "Licensee". The terms of sale or licences can be widely varied to suit the circumstances of each case.

Some typical ways in which patents are often sold or licensed are:

(i) Outright sale of a patent for a lump sum;

(ii) Sale of a patent partly for a lump sum and partly of a payment in terms of volume of out-turn by the purchaser during the term of the patent;

(iii) Licences to one or more persons in exchange for a lump sum and/or periodic payments, usually called "royalties".

Licences to use a patented invention may extend to the whole of the invention or to some particular part of it, or in relation to some particular materials only. They may extend to the whole of the territory covered by the patent or to any particular zone. They may be for the making, and/or the using, as agreed between the patentee and his licensee.

Licences are also broadly of two kinds: exclusive and non-exclusive. By the exclusive licence, the patentee agrees not to grant any licences to others while the first licence exists. In the non-exclusive licence, there is no such restriction, but the patentee may grant as many other licences as he likes.

There are no hard and fast rules for determining the value of patents or for fixing the royalties to be paid by licensees. Numerous factors, many of an indeterminate or of a speculative nature affecting demand and supply have to be reckoned with. Often the royalty payable to a patentee may vary from 5 to 15% of the retail sale price of the article.

A few examples of typical terms of licence agreements are given below:—

(i) lump sum premium of Rs. 25,000/- *plus* recurring royalty of 5% on net ex-factory sale price;

(ii) lump sum payment of Rs. 1,500/- *plus* recurring royalty of 2 as. per pound of sales;

(iii) royalty @ 1.5% on the wholesale ex-factory sale price for each article manufactured;

(iv) non-exclusive licence at a royalty of $3\frac{1}{2}$% on the net ex-factory sale price;

(v) exclusive licence for 5 years over a defined territory for lump sum premium of Rs. 500/- *plus* royalty at 6 pies for each bottle of beverage marketed;

(vi) lump sum premium of Rs. 50,000/- for exclusive licence over a given territory for 10 years.

# Appendices

## APPENDIX I

## HISTORICAL AND COMPARATIVE

*Historical background :*

The patent system has deep roots in the past, and, like so many other institutions, has evolved slowly. The idea of conferring exclusive privileges on inventors can be traced as far back as about the year 500 B.C., when a gastrological version of the patent system appears to have prevailed in Sybaris, a wealthy Greek city whose inhabitants were reputed to live voluptuous lives. Phylarchus, a great historian of the third century B.C., writing about Sybaria, says that it had a law that "if any confectioner or cook invented any peculiar or exclusive dish, no other artist was allowed to make this for a year; but he alone who invented it was entitled to all the profit to be derived from the manufacture of it for that time, in order that others might be induced to labour at excelling in such pursuits."

*Origin of the modern patent system :*

Origin of the modern patent system, in so far as it is based on a recognition of the economic aspects of patent grants, can be traced back to the monopolistic grants made in England and in certain European countries, in the Middle Ages in exercise of the Prerogative powers of the Crown. These powers were generally exercised for granting monopolistic rights to artisans and craftsmen to encourage them to introduce new industries within the realm. Such protection was particularly useful to attract foreign craftsmen to establish their industries within the country and to teach their skill and methods to native craftsmen.

Very often the kingly powers were exercised for making grants to royal favourites or for replenishing royal coffers by granting oppressive monopolies frequently in return for large

payments made to the Crown. Thus a large number of patents came to be granted for the manufacture of articles of daily need such as soap, glass, knives and paper. This gave rise to strong condemnation of the system of granting such monopolistic privileges by the Crown, and led to the enactment of statues which limited the powers of the Crown, and laid down specific conditions on which patents of invention might be granted by the Crown. The idea of public interest was thus introduced into the patent system at a very early date.

*The English Patent System :*

The Statute of Monopolies, enacted in England in 1624, is the earliest legislation for this purpose. The statute provided *inter alia*, that (i) patents may be granted only for new manufactures which, at the time of grant, were not in use within the realm;

(ii) patents may be granted only to the true and first inventors of such manufacturers (under the present law the inventor's right to obtain a patent is transferable);

(iii) the duration of patent privileges shall be limited to a term of 14 years (the term has now been increased to 16 years); and

(iv) the patent privileges so conferred shall not be contrary to law, mischievous to the State by raising prices of commodities at home or hurt of trade, or generally inconvenient.

The patent legislation of all important countries is based on the fundamental principles enunciated above. Hence the modern patent system may be said to have originated with the Statute of Monopolies.

*Patent law in the U.S.A.:*

The United States of America was the second country in the world to enact a law of patents. But she based her law not on any concept of the prerogative of the Crown, nor even as a matter of Government policy or expediency, but on a recognition of

the inherent right of the inventor to the fruits of his genius and labour. Thus in Article I, Section 8, paragraph 8, of the Constitution of the United States we read:—

> " The Congress shall have the power to promote the progress of science and the useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

*France:*

The first patent law of France, passed in 1791, one year after the American legislation, accepted the right of the inventor as the basis of the law. An interesting feature of the French Patent System is that patent applications are not subject to examination as to novelty. But the validity of patents can be questioned in a court of law.

*The German Patent System:*

The first German Patent law which came into force in 1877, has had a decisive inuflence upon the further development of patent legislation in the world. The most important aspect of this law is that it combined the following two features:

(i) before a patent is granted, every application is examined for novelty. This system was introduced in the United States in 1836; and

(ii) after a patent is accepted by the Patent Office, an opportunity is given to the general public to " oppose " the grant (Great Britain, 1852).

*Russia:*

The system of procedure created in Germany generally called the German system, was adopted in many countries, including Russia, prior to the first World War. The present law in Russia, promulgated in 1931, introduces interesting features. A duty is imposed on the Government and public authorities to promote

inventions. It is open to every inventor to adopt either of the following courses:—

(i) He can apply for a patent. In this case he earns the right as patentee to exploit the invention within the limits imposed by Soviet legislation on private and commercial activities.

(ii) Alternatively, the inventor can apply for a 'certificate of authorship'—this gives the inventor a claim to recompense in case his invention is exploited by the Government or commercial corporations.

*Patent Law in India:*

Substantive legislation for the protection of inventions in India was enacted in 1856, 1859, 1888 and 1911. In the first three enactments the word " Patent " did not occur. In its place the expression " Exclusive Privilege " was used. Otherwise the enactments corresponded to the legislation for the time being in force in the United Kingdom. There was no provision for sealing a patent but the exclusive privilege, which was virtually the same as a patent right, automatically accrued to the applicant on his filing a specification.

The earlier enactments did not provide for the establishment of a Patent Office or for an examination of the specification or for any opposition proceedings prior to granting leave for filing the specification.

The Act of 1911 made important departures in these respects and for the first time provided for the granting of a " Patent" and the establishment of a Patent Office for matters incidental or supplementary to the granting of patents.

## APPENDIX II

# REFORM OF THE PATENT SYSTEM

The economic future of the country depends in the long run upon the inventiveness, manufacturing skill, hard work, enterprise, and financial and business ability of its people. The development of these qualities can be fostered by laws and institutions including a patent system designed to suit the requirements of the people. The efficiency of the patent system, in turn, depends upon the care and interest with which it is built up and the extent to which it is availed of by the country's inventors, manufacturers, and scientists.

*Compulsory working of the patents—the public interest :*

The question of improving the Indian Patent System received the close attention of the Government in 1948 when an expert Committee was appointed to enquire into the matter. On the basis of an interim Report made by the Committee, comprehensive legislation was enacted to make it easier for interested parties to challenge patents in case rights under them were abused or misused. There have been surprisingly few actions under these anti-abuse provisions. But the very presence of these statutory provisions may have had a salutary effect on the licensing policies of those patentees who might otherwise have been inclined to misuse their rights.

Recent legislation has made it compulsory for the patentee to issue licences to anyone willing to work patented inventions in the field of food, medicines, and insecticides. Here again, there has been hardly any demand from manufacturers for such compulsory licences from patentees. Apparently, in the matter of securing the adequate working of patents, the natural interest of patentees and inventors in seeing their inventions sufficiently

developed and exploited is a more powerful factor than compulsive legislation.

## THE PATENTS BILL, 1954

On the basis of the final recommendations of the expert referred to above, a Bill was introduced in the House of the People in 1953.

This Bill provides for compulsory searches by the Patent Office for ascertaining the novelty of inventions before patents are granted. Such searches are likely to enhance the commercial value of patents as the stricter scrutiny would lessen the chances of granting patents which ultimately turn out to be invalid.

The Bill also seeks to replace the present " opposition " proceedings, which are of the nature of protracted litigation between parties, by a simpler procedure of filing objections by interested parties before a patent is sealed.

A number of other provisions calculated to improve the efficiency of the functioning of patent law in this country are included in the Bill. It is hoped that the legislation will soon be enacted and would result in a more modern and adequate patent system for this country, which is making rapid strides in the fields of research, invention and industry.

## APPENDIX III

## FURTHER STUDY

*Patent Office Handbook, 8th Edition :*

This is a most useful book for dealing with the Indian Patent Office. It contains the existing law relating to Patents & Designs and also a section devoted to general instructions. The 9th Edition has left out the Index, so invaluable for practical reference.

*Martin, The English Patent System :*

A classic and a master-piece for a brief and critical understanding of the Patent system.

*Inventions & Their Management : by Berle and de Camp :*

An up-to-date planned guide for inventors.

*Other important treatises on Patent Law include those by :*

Terrel; Fletcher Moulton and Toulmin.

For a thorough study of the subject the Reports of Patents, Designs & Trade Mark Cases; Transactions of the Chartered Institute of Patent Agents; Journal of the Patent Office Society U.S.A. and numerous other books and periodicals should be consulted.

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